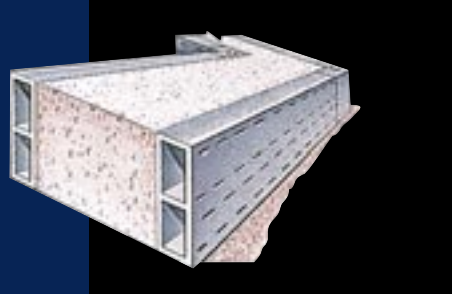
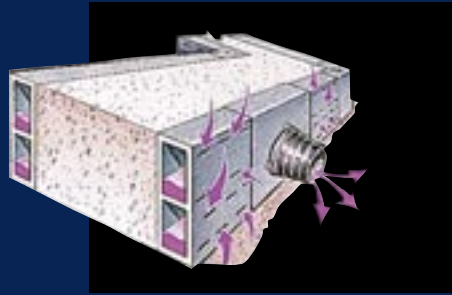


FORM-A-DRAIN®

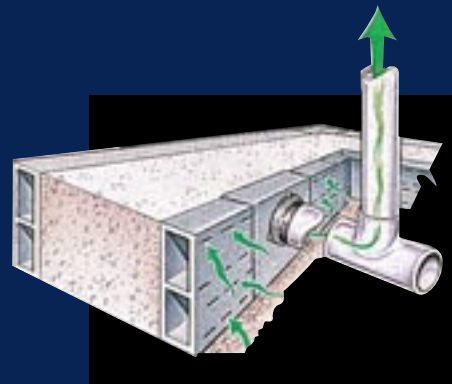
CertainTeed: Form-A-Drain® Installation Guide



FORMS FOOTINGS



DRAINS FOUNDATIONS



VENTS RADON

CertainTeed 

CertainTeed: FORM-A-DRAIN® Installation Guide



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Foreword

This installation guide was written for the foundation contractor as a guide to the proper receiving, handling and installation of CertainTeed's FORM-A-DRAIN system. FORM-A-DRAIN forms footings, drains foundations and reduces radon. Sizes available are 2-1/4"x4", 2-1/4"x6", 2-1/4"x8". Standard lineal length is 12 feet. A complete line of couplings, corners, drain outlets and accessories is available for constructing complete footing form, drainage and radon reduction systems.

The properties, dimensions and weights of lineals and fittings listed here are subject to normal manufacturing tolerances. This information is supplied for user reference only and is subject to change without notice.

FORM-A-DRAIN is the subject of BOCA Research Report #95-37 renewed annually.

FORM-A-DRAIN may be referred to as "FAD" throughout this guide.

Construction - Footing Form/Drainage

Note: Refer to local building codes/standards regarding construction regulations pertaining to excavation, footing construction practices and foundation drainage requirements.

Rough Layout

Begin with the rough layout of the required number of standard 12' lineals, couplings, 90 degree corners, 45 degree corners, drain outlets and other necessary accessory parts.



Cutting

Cut lineals with a hand or power saw to the required length. Square cuts help ensure proper alignment into couplings, corners and other accessories.



Hand Saw



Circular Saw



"Sawz-all"



Assembly

Insert lineals into couplings, corners, or outlets to construct each side of the footing form. Place the slotted side of the lineal to the outer side of the footing. Accessory items are manufactured to ensure a snug fit, so lubricant or solvent cement is not necessary. Spacer straps may be used to ensure proper footing width. Staking the corners with rebar may be required to hold the system in place.



Grade Stake



Forming Pin



Wood Stake

Leveling

Leveling can begin during or upon completion of the assembly of the footing form. Grade Stakes (GS018, GS030), steel forming pins, or wood stakes may be used. Place stakes on outer (slotted) side of lineal, drilling a drywall screw through hole in stake directly into lineal. Pre-drilled holes in wood stakes helps to position properly. For wood stakes, nail a scaffold nail through the lineal from the inner (not slotted) side of lineal; this allows for easy removal.



Reinforcing

After leveling, use grade stakes between leveling points to reinforce forms. Recommended staking distance is 3' to 5' to minimize bowing from the lateral force of the concrete pour. Place stakes on the outer (slotted) sides of the forms, or use rebar stake (1/2" grade 60 or 5/8" grade 40) through holes in coupling/corner pieces. Drive stake into ground for lateral reinforcement.

Spacer Straps

Use of spacer straps available in 16", 20" and 24" widths (SS416, SS420, SS424), speeds up the setting of forms. Spacer straps can be removed prior to concrete pour for re-use.

Change in Elevation

Should there be a requirement for changes in elevation within the foundation plans, FAD is fully adaptable through the use of Vertical "L" and Vertical "T" fittings. The flow of drainage remains continual throughout the system.



Corrugated Pipe/Outlets

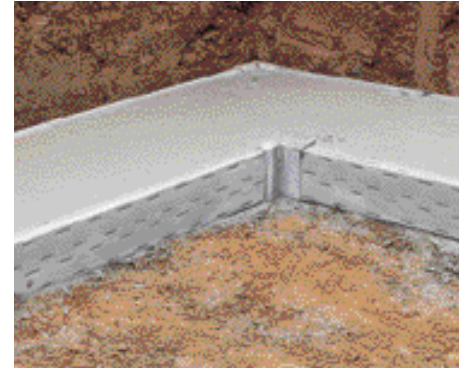
PVC Pipe/Drilled Holes

Drainage Outlet

Use a drainage outlet or outlet adapter that provides a transition to 4" round diameter. Install with the round adapter at the bottom. Drainage disposal must be done in compliance with local codes and practices.

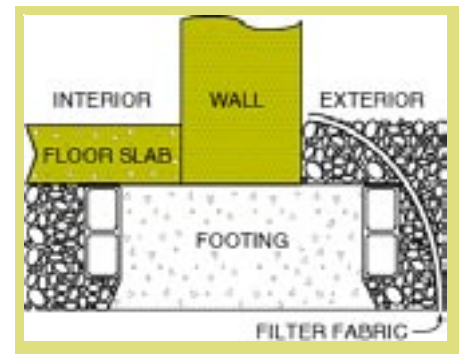
Crossover Drainage

Inner and outer drainage channels are connected by using constructing crossovers.* Crossovers from one lineal to another can be made by aligning two drainage outlets and connecting them using the appropriate diameter pipe. As an option, crossover outlet holes can be cut into lineals, then install 2 outlet adapters (AD004) in cut-out holes in lineals so they align with each other. Or use 2" or 3" PVC pipe, cutting the ends at a 45° angle to keep lineals from being blocked.



Concrete Pour and Screeding

Proceed with the concrete pour, filling the footing form with concrete. Screed off the top of the lineals upon completion. The system is left permanently in place to act as the foundation drainage and radon reduction system. **DO NOT REMOVE FORMS.**



Stone

Place stone in the same manner as current practice. In some cases, placing stone in place prior to the concrete pour can hold the forms in place. This eliminates the need for this step prior to wall construction.

Filter Fabric - Integrated

Filter fabric needs to be used only as local codes dictate. Lineals are available with factory-applied filter fabric adhered directly on the slotted lineal. Refer to literature sheet 40-95-08 for complete details. As an option, separate filter fabric may be installed. Partially backfill outside of footing with appropriate stone, apply geotextile or filter fabric as illustrated and complete backfilling with stone.

Filter Fabric - Separate

* Refer to ACI318 Building Code Requirements for Reinforced Concrete, Chapter 6, Section R6.3—Conduits and Pipes Embedded in Concrete.